

Technology Price Estimates for 21st Century Energy Plan

Technology	Cost Base Source	Size	\$/kW				\$/MWh	Design Net Plant
			Base	Overnight Capital (2006 \$)	Overnight Capital (2006 \$)	Fixed O&M (2006\$)	Var. O&M (2006\$)	Heat Rate BTU/kWh
Cost adjustment			Base Cost from 2003 \$	3% inflation from 2003 \$	10% inflation adder included for each technology	3% inflation from 2003 \$	3% inflation from 2003 \$	
Pulverized Coal								
Sub-critical	OEC	500	1,230	1,344	1,478	44.26	1.86	9,496
Supercritical	OEC	500	1,290	1,410	1,551	44.91	1.75	8,864
Ultra Super Critical	EPA	500			1,675	47.16	1.84	8,000
Fluidized Bed	OEC	300	1,290	1,480	1,628	46.11	4.37	9,996
IGCC*	OEC w/spare	550	1,350	1,623	1,785	61.30	0.98	9,000
IGCC - PRB Fuel	add 12% of IGCC	550	1,512	1,817	1,999	61.30	0.98	10,080
Nuclear	EIA	1000	1,957	2,138	2,352	69.93	0.55	10,400
Combined Cycle	OEC	500	440	481	529	5.57	2.19	7,200
Combustion Turbine	Mirant / OEC	160	375	386	425	2.19	3.82	10,450

Technology Construction Relative Costs

Sub-critical PC	1,344	100%
Supercritical PC	1,410	105%
Fluidized Bed	1,480	110%
IGCC	1,623	121%
IGCC - PRB Fuel	1,817	135%
Nuclear	2,138	159%
Combined Cycle	481	36%
Combustion Turbine	386	29%

Due to multiple sources of base data the EIA cost spread was maintained and shown above. IGCC was adjusted by 10% to keep relative costs consistent with EIA data.

Fluidized bed was adjusted by 5%.

Sources

OEC - Opportunities to Expedite the Construction of New Coal-Based power Plants
(National Coal Council Report)

EIA Annual Energy Outlook 2005 and 2006

EPA - Coal Based Technology Report (EPA-430/R-06/006) July 2006

*IGCC has a 10% increase

*Fluidized bed 5% increase

The overnight construction cost was further adjusted when modeled by Strategist:

AFUDC added based on years of construction

Total Revenue requirements required for Strategist input is developed which includes insurance, property taxes and return.

A transmission inter-connect fee based on 5% of the capital investment for a generic coal unit (\$74.49/kw) is added to all future generation units.